

**DESCRIPTION:**

Under this item the CONTRACTOR shall furnish and install Polycarbonate Pedestrian Signal Head shells (less glass, legend, lamp socket, etc., for installation of LED signal modules).

**MATERIAL & CONSTRUCTION REQUIREMENTS**

**MATERIAL:**

All head housings shall be made of an ultraviolet-stabilized polycarbonate resin having a minimum thickness of 2.3 mm.

The color of the signal shall be Federal Yellow (Mil STD 595A-Color Std. 13538). The color for the housing, door, and the visors shall have the color completely impregnated in the resin material.

All eye bolts, wingnuts and other related hardware shall be 304 grade stainless steel.

All suspension components, brackets, clamps, arms, elbows, crosses, etc. shall be made of one of the following materials:

1. Aluminum sand castings in accordance with ASTM B26, Alloy 356-T-6.
2. Aluminum die castings in accordance with ASTM B 85, Alloy sc. 84 B
3. Aluminum pipe in accordance with ASTM B429.

Only virgin metal shall be used in making either sand castings or die castings.

**WIND LOAD:**

Heads, mounting brackets, attachments and fittings shall be designed for a wind load pressure for at least a 90-mph wind in accordance with AASHTO standard specifications for "Structural Supports for Highway Signs, Luminaries and Traffic Signals 1994" Section 2 -1.2.4.

**PAINTING:**

All bracket arms and mounting attachments shall have 3 coats of paint, each of which shall be baked after application. The first prime coat shall be zinc chromate paint. Material's specification section 708-04 of the New York State Department of Transportation. The second and third coats shall be "YELLOW" enamel unless otherwise specified.

**MOUNTING:**

Heads shall be arranged for mounting on vertical pole bracket mounts as specified in the contract documents. Vertical pole mount heads shall be equipped with upper and lower horizontal brackets equipped with pole plates for attachment to the pole with stainless steel

bands.

**HOUSING:**

The housing for each face shall be of unitized sectional construction. All sections shall be rigidly and securely fasten together into one weather tight signal face. Each housing shall be arranged with openings in the top and bottom as to accommodate 38 mm pipe fittings and brackets and shall be capable of securely fastening at increments of not more than 5 degrees of rotation. The top and bottom of each housing shall have integrally cast locking rings to provide positive interlocking and indexing.

**DOORS:**

The door shall be polycarbonate resin die molded and shall provide mounting for the lens and visor. A neoprene gasket shall be provided between the body of the housing and the doors or the optical system shall be properly fitted to exclude dust and dirt from the reflecting surface of the reflector and the inner surface of the lens. The doors shall be suitably hinged and shall be forced tightly against the gasket and the housing by simple stainless steel locking devices. All doors shall be yellow unless otherwise indicated.

**VISORS:**

The visors shall be separate and removable from the doors , held in place by stainless steel fastenings attached to the door in such a manner as to prevent the possibility of any light leakage between the door and hood which might be discernable from the side. Visors shall be made of an ultraviolet stabilized polycarbonate resin with a minimum thickness of 2.286mm. All visors will be yellow with the inside of a visor painted flat black to minimize light reflection to the sides of the signals.

**CONNECTION BLOCKS:**

Each unit shall be equipped with a 5-point heat resistant terminal block. It shall have five terminals with connectors for receptacle leads and screw terminals for field wires.

**WARRANTY:**

The entire signal assembly shall be guaranteed to be free from defects in materials and workmanship for a period of two years from date of shipment by the manufacturer.

**BASIS OF ACCEPTANCE:**

Acceptance of pedestrian signals will be based on manufacturers' certification of compliance with these specification requirements.

**BASIS OF PAYMENT:**

The unit bid price shall be for a complete two piece assembly including all mounting

**686.8117M 300mm POLYCARBONATE PEDESTRIAN SIGNAL HEADS - SHELL**

hardware as referenced above in “Mounting”. Payment for each pedestrian signal shall be made for the measured quantity as the contract price per each; which price shall be for full compensation for furnishing, transporting, installing and adjusting all materials including but not limited to any necessary modifications to achieve proper signal mounting height in conformance with NYS MUTCD.

Payment will be made under:

<b><u>Item No.</u></b>	<b><u>Item</u></b>	<b><u>Pay Unit</u></b>
686.8117M	300mmPolycarbonate Pedestrian Signal Head – Shell	Each